



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------------|------------------|
| 10/806,060 | 03/22/2004 | Holger Richert | SANZ-254 (10403677) | 1584 |
| 24972 | 7590 | 09/28/2006 | | |
| FULBRIGHT & JAWORSKI, LLP 666 FIFTH AVE NEW YORK, NY 10103-3198 | | | | |
| | | | EXAMINER STOUFFER, KELLY M | |
| | | | ART UNIT | PAPER NUMBER |

1762

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/806,060 | Applicant(s) RICHERT ET AL. | |
| | Examiner Kelly Stouffer | Art Unit 1762 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>3/22/04 6/2/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Please include headings for the field of the invention, description of related art, and a separate heading for the brief summary of the invention.

Claim Objections

2. Claim 16 is objected to because of the following informalities: Claim 16 is written to depend upon claim 5, a cancelled dependant claim in the preliminary

Art Unit: 1762

amendment. For purposes of examination, claim 16 is assumed to depend upon claim 15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1762

3. Claims 11- 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent number 4274936 to Love in view of US publication 2002/0020496 to Shinohara et al.

Regarding claim 11, Love discloses a method for the operation of a an in-line coating installation having an inward transfer chamber, buffer chamber, process chamber, buffer chamber, and outward transfer chamber with gates between the chambers that can be opened and closed. (Described as entrance and exit chambers, coating chambers and isolation chambers in column 5 lines 25-43.) The gates between the two buffer chambers and their respective adjacent inward and outward transfer chambers are opened and the pressure conditions are adapted to one another during the method disclosed by Love (column 4 lines 3-24 and column 11 lines 3-20). The substrate of Love is also of a specified maximum size (abstract). Love does not disclose a substrate larger than the transfer chamber or buffer chamber or a buffer and transfer chamber that are of the same size. Shinohara et al. uses a similar procedure and apparatus as Love (Shinohara et al. does not use physical but separates the chambers with gas outlets that may be considered gates at least as broadly described by claim 11), and teaches transfer chambers 407 and 410 that are of the same size of buffer chambers 408a and 408b in Figure 4 with a substrate large enough to require the transfer and buffer chambers to be open to one another in order to continuously coat a large substrate (paragraphs 0004-0005 et seq.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Love to include a substrate larger than the transfer chamber or

Art Unit: 1762

buffer chamber or a buffer and transfer chamber that are of the same size as taught by Shinohara et al. in order to continuously coat a large substrate.

Regarding claim 12, Shinohara et al. has a conveying system for the substrate that has a constant rate throughout the chambers (as the substrate is so large it is inherent), and Love discloses each chamber having its own transportation system (column 10 lines 8-40).

With regard to claim 13, Love shows a process chamber 2 with a left and right boundary formed by slit diaphragms 90 and 110 in Figure 1.

With regard to claim 14, the sequence of opening and closing of valves is disclosed by Love in the section labeled "Operation" in columns 13-18 et seq. One of ordinary skill in the art would recognize that if the substrate was larger than either of the transfer or buffer chambers, that valve would have to be open to process the substrate in those chambers, as taught by Shinohara et al. above.

Regarding claim 15, Love discloses pumps associated with the inward transfer chamber that pump the chamber from atmospheric pressure to a lower pressure with roughing pumps (column 8 et seq) and pumps associated with the buffer chamber that pump the chamber closer to the pressure of the coating chamber (the absolute pressure of the system in column 11 lines 21-40).

Regarding claim 16, Love discloses the first pressure to be below 500 microns in column 8, with is approximately 7 mbar when converting units, and 0.01-0.001 microns in column 11 lines 21-40 which is approximately 0.05 mbar.

Art Unit: 1762

Regarding claims 17 and 18, Shinohara et al. shows the same transportation arrangements and rates as discussed above for both the transfer and buffer chambers.

Regarding claims 19 and 20, Love discloses controlling pressures and opening and closing gates with a control and manifolds in the abstract, column 6 lines 19-37, column 7 lines 56-62 and other locations throughout the document.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takahashi, Nakamura et al. and Tateishi et al. all show a similar apparatus and procedure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly Stouffer whose telephone number is (571) 272-2668. The examiner can normally be reached on Monday - Thursday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kelly Stouffer
Examiner
Art Unit 1762

kms



TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER